

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Formosa Plastics Corporation, Texas

AUTHORIZING THE OPERATION OF

Caustic/Chlorine and EDC Plants  
Plastics Materials

LOCATED AT

Calhoun County, Texas

Latitude 28° 41' 20" Longitude 96° 32' 50"

Regulated Entity Number: RN100218973

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1953 Issuance Date: \_\_\_\_\_

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For the Commission

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## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
  - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subparts, F, G, and H, as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapters C, §§ 113.110, 113.120, and 113.130, respectively, which incorporates the 40 CFR Part 63 Subpart by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(1)(E)
- (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
  - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
  - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum

required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement.

However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- C. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
  - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
  - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
  - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
  - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

- D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
  6. For the chemical manufacturing process specified in 40 CFR Part 63, Subpart F, the permit holder shall comply with 40 CFR § 63.103(a) (relating to General Compliance, Reporting, and Recordkeeping Provisions) (Title 30 TAC Chapter 113, Subchapter C, § 113.110 incorporated by reference).
  7. For the chemical manufacturing facilities with a 40 CFR Part 63, Subpart G Group 2 wastewater stream, the permit holder shall comply with (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
    - A. Title 40 CFR § 63.132(a), (a)(1), and (a)(1)(i) (relating to Process Wastewater Provisions - General)
    - B. Title 40 CFR § 63.146(b)(1) (relating to Process Wastewater Provisions - Reporting)
    - C. Title 40 CFR § 63.147(b)(8) (relating to Process Wastewater Provisions - Recordkeeping)
  8. For the chemical manufacturing facilities subject to leak detection requirements in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
    - A. General Leak Detection Requirements:
      - (i) Title 40 CFR § 63.148(d)(1) - (3), and (e) (relating to Leak Inspection Provisions)
      - (ii) Title 40 CFR § 63.148(c), (g), (g)(2), (h), and (h)(2) (relating to Leak Inspection Provisions), for monitoring and testing requirements
      - (iii) Title 40 CFR §§ 63.148(g)(2), (h)(2), (i)(1) - (2), (i)(4)(i) - (viii), (i)(5), and 63.152(a)(1) - (5), for recordkeeping requirements



- (iv) Title 40 CFR §§ 63.148(j), 63.151(a)(6)(i) - (iii), (b)(1) - (2), (j)(1) - (3), 63.152(a)(1) - (5), (b), (b)(1)(i) - (ii), and (b)(4), for reporting requirements
- B. For closed vent system or vapor collection systems constructed of hard piping:
  - (i) Title 40 CFR § 63.148(b)(1)(ii) (relating to Leak Inspection Provisions), for monitoring and testing requirements
  - (ii) Title 40 CFR § 63.148(i)(6) (relating to Leak Inspection Provisions), for recordkeeping requirements

### **Additional Monitoring Requirements**

- 9. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

- 10. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
  - A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield

11. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
12. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **Compliance Requirements**

13. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
14. Use of Discrete Emission Credits to comply with the applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116
    - (iv) Temporarily exceed state NSR permit allowables
  - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

- (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
- (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
- (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
- (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

### **Risk Management Plan**

- 15. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

### **Protection of Stratospheric Ozone**

- 16. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
  - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.
  - B. The permit holder shall comply with 40 CFR Part 82, Subpart A for controlling the production, transformation, destruction, export or import of a controlled (ozone-depleting) substance or product as specified in 40 CFR § 82.1 - § 82.13 and the applicable Part 82 Appendices.

- C. The permit holder shall comply with the following 40 CFR Part 82, Subpart E requirements for labeling products using ozone-depleting substances:
- (i) Title 40 CFR § 82.100 (relating to Purpose)
  - (ii) Title 40 CFR § 82.102(a)(1) - (3), (b), (c) (relating to Applicability);
  - (iii) Title 40 CFR § 82.104 (relating to Definitions)
  - (iv) Title 40 CFR § 82.106 - 112 (relating to Warning Statements and Labels)
  - (v) Title 40 CFR § 82.114 (relating to Labeling Containers of Controlled [ozone - depleting] Substances)
  - (vi) Title 40 CFR § 82.116 (relating to Incorporation of Products Manufactured with Controlled [ozone-depleting] Substances)
  - (vii) Title 40 CFR § 82.120 (relating to Petitions)
  - (viii) Title 40 CFR § 82.122 (relating Certification, Recordkeeping, and Notice requirements)
  - (ix) Title 40 CFR § 82.124 (relating to Prohibitions)
- D. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.
- E. The permit holder shall comply with 40 CFR Part 82, Subpart A, § 82.13 related to recordkeeping and reporting requirements for the production and consumption of ozone depleting substances.

### **Permit Location**

17. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

### **Permit Shield (30 TAC § 122.148)**

18. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit

revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

### **Applicable Requirements Summary**

<b>Unit Summary .....</b>	<b>14</b>
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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
6002A/B/C	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
6002A/B/C	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63G-2	40 CFR Part 63, Subpart G	Overlap = Title 40 CFR Part 60, Subpart RRR
6002A/B/C	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63G-3	40 CFR Part 63, Subpart G	Overlap = Title 40 CFR Part 60, Subpart NNN
6002C	BOILERS/ STEAM GENERATORS/ STEAM GENERATING UNITS	N/A	60Dc-2	40 CFR Part 60, Subpart Dc	No changing attributes.
DT-255	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
DT-255B	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
DT-402	STORAGE TANKS/ VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-402	STORAGE TANKS/ VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DT-402B	STORAGE TANKS/ VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-402B	STORAGE TANKS/	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.



### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	VESSELS				
DT-402C	STORAGE TANKS/ VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-402C	STORAGE TANKS/ VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DT-407A	STORAGE TANKS/ VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-407A	STORAGE TANKS/ VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DT-407B	STORAGE TANKS/ VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-407B	STORAGE TANKS/ VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DV-101	STORAGE TANKS/ VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DV-101	STORAGE TANKS/ VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DV-252	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
DV-252B	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
EDC PLANT	CHEMICAL MANUFACTURING	N/A	63F-1	40 CFR Part 63, Subpart F	No changing attributes.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	PROCESS				
EDCFUG	FUGITIVE EMISSION UNITS	N/A	63H-1	40 CFR Part 63, Subpart H	ENCL COMB DEV (CVS) = COMPONENT NOT PRESENT, FLARES (CVS) = COMPONENT PRESENT
EDCFUG	FUGITIVE EMISSION UNITS	N/A	63H-2	40 CFR Part 63, Subpart H	ENCL COMB DEV (CVS) = COMPONENT PRESENT, FLARES (CVS) = COMPONENT NOT PRESENT
GRP- INCINERATE	BOILERS/ STEAM GENERATORS/ STEAM GENERATING UNITS	6002A, 6002B	60Dc-1	40 CFR Part 60, Subpart Dc	No changing attributes.
HE LOADING	LOADING/UNLOADING OPERATIONS	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
6002A/B/C	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(A)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2)	None
6002A/B/C	EP	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(c)(1) § 63.113(c)(1)(i) § 63.113(h) [G]§ 63.115(f) § 63.116(b)	Reduce emissions of total organic HAPs by 98 wt.% or to a concentration of 20 ppm by volume; whichever is less stringent or as specified. §63.113(a)(2)(i)-(ii)	§ 63.114(a) § 63.114(a)(1)(i) [G]§ 63.114(a)(4) § 63.114(e) [G]§ 63.115(f) [G]§ 63.116(d)	§ 63.114(a)(1) [G]§ 63.114(a)(4) [G]§ 63.117(a)(6) § 63.118(a)(1) § 63.118(a)(2) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(6) § 63.117(f) § 63.118(f)(1) § 63.118(f)(2) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
6002A/B/C	EP	63G-3	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(c)(1) § 63.113(c)(1)(i) § 63.113(h) [G]§ 63.115(f) § 63.116(b)	Reduce emissions of total organic HAPs by 98 wt.% or to a concentration of 20 ppm by volume; whichever is less stringent or as specified. §63.113(a)(2)(i)-(ii)	§ 63.114(a) § 63.114(a)(1)(i) [G]§ 63.114(a)(4) § 63.114(e) [G]§ 63.115(f) [G]§ 63.116(d)	§ 63.114(a)(1) [G]§ 63.114(a)(4) [G]§ 63.117(a)(6) § 63.118(a)(1) § 63.118(a)(2) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(6) § 63.117(f) § 63.118(f)(1) § 63.118(f)(2) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
6002C	EU	60Dc-2	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
6002C	EU	60Dc-2	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
6002C	EU	60Dc-2	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
DT-255	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
DT-255B	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
DT-402	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DT-402	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with §63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DT-402B	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DT-402B	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DT-402C	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DT-402C	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DT-407A	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DT-407A	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii)



## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DT-407B	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DT-407B	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DV-101	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
DV-101	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.152(c)(6)
DV-252	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
DV-252B	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
EDC PLANT	PRO	63F-1	112(B) HAPS	40 CFR Part 63, Subpart F	§ 63.100(b) [G]§ 63.102(a) [G]§ 63.102(c) § 63.104(a) [G]§ 63.104(d) § 63.104(e) § 63.104(e)(1) [G]§ 63.104(e)(2) § 63.105(d)	Except as provided in paragraphs (b)(4) and (c) of this section, the provisions of subparts F, G, and H apply to chemical manufacturing process units that meet the criteria.	§ 63.103(b)(1) § 63.103(b)(3) § 63.103(b)(4) [G]§ 63.103(b)(5) § 63.103(b)(6) [G]§ 63.104(b)	[G]§ 63.103(c) [G]§ 63.104(e)(2) [G]§ 63.104(f)(1) [G]§ 63.105(b) § 63.105(c) § 63.105(e)	§ 63.103(b)(2) [G]§ 63.103(b)(5) [G]§ 63.103(d) [G]§ 63.104(f)(2)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Surge control vessels and bottom receivers.	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	Owners/operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section, except as provided in §63.162(b).	[G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(d) § 63.11(b) § 63.172(e) [G]§ 63.172(h) § 63.172(m)	Flares used to comply with this subpart shall comply with the requirements of § 63.11(b) of 40 CFR 63, Subpart A.	§ 63.172(e) [G]§ 63.172(h) [G]§ 63.180(b) [G]§ 63.180(d) [G]§ 63.180(e)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) § 63.181(g)(1)(iii) § 63.181(g)(1)(iv) [G]§ 63.181(g)(2)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c)	Standards: Connectors in gas/vapor service and in light liquid service.	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	§63.174(a)-(j)		[G]§ 63.181(d)	[G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Surge control vessels and bottom receivers.	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	Owners/operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section, except as provided in §63.162(b).	[G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(c) § 63.172(e) [G]§ 63.172(h) § 63.172(m)	Enclosed combustion devices shall be designed and operated to reduce the organic HAP or VOC emissions vented to them with requirements as specified in this section.	§ 63.172(e) [G]§ 63.172(h) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) § 63.181(g)(1)(iv) [G]§ 63.181(g)(2)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EDCFUG	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
GRP-INCINERATE	EU	60Dc-1	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
GRP-INCINERATE	EU	60Dc-1	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
GRP-INCINERATE	EU	60Dc-1	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
HE LOADING	EU	R5211-1	VOC	30 TAC Chapter	§ 115.217(b)(3)(A)	Plants, excluding gasoline	§ 115.214(b)(1)(A)	§ 115.216	None



### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				115, Loading and Unloading of VOC	§ 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	bulk plants, which load <20,000 gallons of VOC into transport vessels per day with a true vapor pressure of 1.5 psia or greater are exempt from this division, except for the specified requirements.	§ 115.214(b)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216(2) § 115.216(3)(B) § 115.216(3)(D)	

**Additional Monitoring Requirements**

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## Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: DT-255, DT-255B, DV-252, DV-252B	
Control Device ID No.: 6002A/B/C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Water Separation	SOP Index No.: R5131-1
Pollutant: VOC	Main Standard: § 115.132(c)(3)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum Temperature = 1300 °F	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

## Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: DT-402, DT-402B, DT-402C	
Control Device ID No.: 6002A/B/C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-2
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum Temperature = 1300 °F	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

## Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: DT-407A, DT-407B, DV-101	
Control Device ID No.: 6002A/B/C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-1
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum Temperature = 1300 °F	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

**Permit Shield**

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## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
2C403A	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
2C403B	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
2C403C	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
2C412	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
2C-C1	N/A	40 CFR Part 63, Subpart Q	The cooling tower has not operated with chromium based water treatment chemicals on or after Sept. 8, 1994.
2C-C2	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
6002A/B/C	N/A	40 CFR Part 60, Subpart NNN	A Group I process vent that is also subject to the provisions of 40 CFR 60, Subpart NNN is required to comply only with the provisions of 40 CFR 63 Subpart G.
6002A/B/C	N/A	40 CFR Part 60, Subpart RRR	A Group I process vent that is also subject to the

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			provisions of 40 CFR 60, Subpart RRR is required to comply only with the provisions of 40 CFR 63 Subpart G.
6002C	N/A	30 TAC Chapter 111, Incineration	This unit does not meet the definition of an incinerator as defined in 101.1.
6002C	N/A	40 CFR Part 60, Subpart E	This unit does not meet the definition of an incinerator as defined in 60.51.
C-601A/B	N/A	30 TAC Chapter 115, Vent Gas Controls	The vent gas stream does not contain any VOC's, as defined in 30 TAC 101.1, nor the category of VOC's in 115.121(c).
DC-102	N/A	40 CFR Part 60, Subpart NNN	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart NNN is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DC-103	N/A	40 CFR Part 60, Subpart NNN	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart NNN is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DC-104	N/A	40 CFR Part 60, Subpart NNN	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart NNN is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DC-105	N/A	40 CFR Part 60, Subpart NNN	A Group 1 process vent that is also subject to the



## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			provisions of 40 CFR Part 60, Subpart NNN is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DR-101A	N/A	40 CFR Part 60, Subpart III	This reactor does not meet the definition of an air oxidation reactor as defined in 40 CFR 60.611.
DR-101A	N/A	40 CFR Part 60, Subpart RRR	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart RRR is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DR-101B	N/A	40 CFR Part 60, Subpart III	This reactor does not meet the definition of an air oxidation reactor as defined in 40 CFR 60.611.
DR-101B	N/A	40 CFR Part 60, Subpart RRR	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart RRR is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DR-101C	N/A	40 CFR Part 60, Subpart III	This reactor does not meet the definition of an air oxidation reactor as defined in 40 CFR 60.611.
DR-101C	N/A	40 CFR Part 60, Subpart RRR	A Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart RRR is required to comply only with the provisions of 40 CFR Part 63, Subpart G.
DT-255	N/A	40 CFR Part 63, Subpart G	This piece of equipment contains Group II wastewater and is not a waste management unit. It does not meet

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			the definition of an oil-water separator as defined in 63.111.
DT-255	N/A	40 CFR Part 63, Subpart VV	This facility does not control air emissions from oil or organic-water separators for which another subpart of 40 CFR 60, 61, 63 references.
DT-255B	N/A	40 CFR Part 63, Subpart G	This piece of equipment contains Group II wastewater and is not a waste management unit. It does not meet the definition of an oil-water separator as defined in 63.111.
DT-255B	N/A	40 CFR Part 63, Subpart VV	This facility does not control air emissions from oil or organic-water separators for which another subpart of 40 CFR 60, 61, 63 references.
DT-402	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to 40 CFR 60, Subpart Kb will comply only with 40 CFR 63, Subpart G.
DT-402B	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to 40 CFR 60, Subpart Kb will comply only with 40 CFR 63, Subpart G.
DT-402C	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to 40 CFR Part 60, Subpart Kb will comply only with 40 CFR Part 63, Subpart G.
DT-407A	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to 40 CFR 60, Subpart Kb will comply only with 40

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			CFR 63, Subpart G.
DT-407B	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to 40 CFR 60, Subpart Kb will comply only with 40 CFR 63, Subpart G.
DV-101	N/A	40 CFR Part 60, Subpart Kb	A Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Kb is required to comply only with the provisions of this subpart.
DV-252	N/A	40 CFR Part 63, Subpart G	This piece of equipment contains Group II wastewater and is not a waste management unit. It does not meet the definition of an oil-water separator as defined in 63.111.
DV-252	N/A	40 CFR Part 63, Subpart VV	The facility does not control air emissions from oil or organic-water separators for which another subpart of 40 CFR 60, 61, 63 references.
DV-252B	N/A	40 CFR Part 63, Subpart G	This piece of equipment contains Group II wastewater and is not a waste management unit. It does not meet the definition of an oil-water separator as defined in 63.111.
DV-252B	N/A	40 CFR Part 63, Subpart VV	The facility does not control air emissions from oil or organic-water separators for which another subpart of 40 CFR 60, 61, 63 references.
EDC PLANT	N/A	40 CFR Part 61, Subpart F	The EDC Plant at Formosa produces EDC by direct

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			chlorination; therefore, since it does not produce the subject pollutant as prescribed and defined in 40 CFR 61.61.
EDC-CT	N/A	40 CFR Part 63, Subpart Q	The cooling tower has not operated with chromium based water treatment chemicals on or after Sept. 8, 1994.
EP4	N/A	40 CFR Part 63, Subpart T	This degreaser does not use a hazardous air pollutant (HAP) solvent, or any combination of halogenated HAP solvents, in total concentration greater than 5 % by weight.
MC-521	N/A	30 TAC Chapter 115, Vent Gas Controls	This vent gas stream does not contain any VOCs as defined in 30 TAC 101.1 or 30 TAC 115.121(c).
MC-531	N/A	30 TAC Chapter 115, Vent Gas Controls	This vent gas stream does not contain any VOCs as defined in 30 TAC 101.1 or 30 TAC 115.121(c).
MC-551A	N/A	30 TAC Chapter 115, Vent Gas Controls	This vent gas stream does not contain any VOCs as defined in 30 TAC 101.1 or 30 TAC 115.121(c).
MC-551B	N/A	30 TAC Chapter 115, Vent Gas Controls	This vent gas stream does not contain any VOCs as defined in 30 TAC 101.1 or 30 TAC 115.121(c).
GRP-INCINERATE	6002A, 6002B	30 TAC Chapter 111, Incineration	This unit does not meet the definition of an incinerator as defined in 101.1.
GRP-INCINERATE	6002A, 6002B	40 CFR Part 60, Subpart E	This unit does not meet the definition of an incinerator as defined in 60.51.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
HE LOADING	N/A	40 CFR Part 63, Subpart F	Per §63.100(f)(10), emission points that under a vapor balance are not subject to the requirements of Part 63, Subparts F, G and H.

**New Source Review Authorization References**

**New Source Review Authorization References ..... 45**

**New Source Review Authorization References by Emission Unit..... 46**

## New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: PSDTX1238	Issuance Date: 05/28/2013
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 19167	Issuance Date: 05/23/2011
Authorization No.: 19199	Issuance Date: 05/28/2013
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.261	Version No./Date: 12/24/1998
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.533	Version No./Date: 03/14/1997

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
2C403A	HCl ABSORBER TRAIN A	19167
2C403B	HCl ABSORBER TRAIN B	19167
2C403C	HCl ABSORBER TRAIN C	106.261/11/01/2003, 106.262/11/01/2003
2C412	C12 ROUTINE VENT SCRUBBER	19167
2C-C1	COOLING TOWER	19199, PSDTX1238
2C-C2	COOLING TOWER	19199, PSDTX1238
6002A/B/C	THREE INCINERATOR/SCRUBBER	19167, 19199, PSDTX1238
6002A	INCINERATOR A	19199, PSDTX1238
6002B	INCINERATOR B	19199, PSDTX1238
6002C	INCINERATOR C	19199, PSDTX1238
C-601A/B	C12 EMERGENCY SCRUBBER	19167
DC-102	EDC LE COLUMN	19199, PSDTX1238
DC-103	EDC HE COLUMN	19199, PSDTX1238
DC-104	EDC RECOVERY COLUMN	19199, PSDTX1238
DC-105	EDC HCl STRIPPING COLUMN	19199, PSDTX1238
DR-101A	EDC LTDC REACTOR A	19199, PSDTX1238
DR-101B	EDC LTDC REACTOR B	19199, PSDTX1238
DR-101C	EDC LTDC REACTOR C	19199, PSDTX1238



### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
DT-255B	DT-255B WASTE WATER TANK	19199, PSDTX1238
DT-255	DT-255 WASTE WATER TANK	19199, PSDTX1238
DT-402B	WET STORAGE EDC	19199, PSDTX1238
DT-402C	WET CRUDE ETHYLENE DICHLORIDE (EDC) TANK	106.261/11/01/2003, 106.262/11/01/2003, 106.476/09/04/2000
DT-402	WET CRUDE EDC TANK	19199, PSDTX1238
DT-407A	HEAVY ENDS TANK	19199, PSDTX1238
DT-407B	HEAVY ENDS TANK	19199, PSDTX1238
DV-101	EDC BUFFER TANK	106.261/12/24/1998, 106.262/12/24/1998
DV-252B	WASTEWATER TANK (VESSEL)	19199, PSDTX1238
DV-252	WASTEWATER TANK (VESSEL)	19199, PSDTX1238
EDC PLANT	EDC PLANT	19199, PSDTX1238
EDC-CT	COOLING TOWER	19199, PSDTX1238
EDCFUG	EDC PROCESS FUGITIVES	19167, 19199, PSDTX1238
EP4	EDC UNIT DEGREASER	19199, PSDTX1238
HE LOADING	HEAVY ENDS TRUCK LOADING	19199, PSDTX1238
MC-521	HCL VENT SCRUBBER	19167
MC-531	HCL VENT SCRUBBER	106.472/09/04/2000

### **New Source Review Authorization References by Emissions Unit**

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Unit/Group/Process ID No.</b>	<b>Emission Unit Name/Description</b>	<b>New Source Review Authorization</b>
MC-551A	HCL VENT SCRUBBER	106.472/09/04/2000
MC-551B	HCL VENT SCRUBBER	106.472/09/04/2000

**Appendix A**

**Acronym List .....50**

## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM .....	actual cubic feet per minute
AMOC .....	alternate means of control
ARP .....	Acid Rain Program
ASTM .....	American Society of Testing and Materials
B/PA .....	Beaumont/Port Arthur (nonattainment area)
CAM .....	Compliance Assurance Monitoring
CD .....	control device
COMS .....	continuous opacity monitoring system
CVS .....	closed-vent system
D/FW .....	Dallas/Fort Worth (nonattainment area)
DR .....	Designated Representative
ELP .....	El Paso (nonattainment area)
EP .....	emission point
EPA .....	U.S. Environmental Protection Agency
EU .....	emission unit
FCAA Amendments .....	Federal Clean Air Act Amendments
FOP .....	federal operating permit
GF .....	grandfathered
gr/100 scf .....	grains per 100 standard cubic feet
HAP .....	hazardous air pollutant
H/G/B .....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S .....	hydrogen sulfide
ID No. ....	identification number
lb/hr .....	pound(s) per hour
MMBtu/hr .....	Million British thermal units per hour
MRRT .....	monitoring, recordkeeping, reporting, and testing
NA .....	nonattainment
N/A .....	not applicable
NADB .....	National Allowance Data Base
NO <sub>x</sub> .....	nitrogen oxides
NSPS .....	New Source Performance Standard (40 CFR Part 60)
NSR .....	New Source Review
ORIS .....	Office of Regulatory Information Systems
Pb .....	lead
PBR .....	Permit By Rule
PM .....	particulate matter
ppmv .....	parts per million by volume
PSD .....	prevention of significant deterioration
RO .....	Responsible Official
SO <sub>2</sub> .....	sulfur dioxide
TCEQ .....	Texas Commission on Environmental Quality
TSP .....	total suspended particulate
TVP .....	true vapor pressure
U.S.C. ....	United States Code
VOC .....	volatile organic compound

**Appendix B**

**Major NSR Summary Table ..... 52**

## Major NSR Summary Table

Permit Number: 19199 and PSDTX1238 Issuance Date: 05/28/2013							
Emission	Source	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Point No. (1)	Name (2)		lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EDCFUG	Process Fugitives (5)	Cl <sub>2</sub>	0.01	0.02	3, 17, 20	3, 17, 20	3, 17
		HCl	0.01	0.01	3, 17	3, 17	3, 17
		VOC	1.47	6.44	17, 18, 19	17, 18, 19	17
6002A/B/C	Three Incinerator/Scrubbers (6)	Cl <sub>2</sub>	0.86	3.78	3, 11, 13, 22, 36	3, 11, 22, 25, 36	3, 22
		CO	2.18	9.54	13, 22, 36	22, 25, 36	22
		CO (7)	9.00	-	13, 22, 36	22, 25, 36	22
		HCl	0.44	1.92	3, 10, 11, 13, 22, 36	3, 10, 11, 22, 25, 36	3, 22
		NO <sub>x</sub>	5.69	24.91	13, 22, 36	22, 25, 36	22
		VOC	1.18	5.27	7, 8, 13, 22, 36	7, 8, 22, 25, 36	22
EDC-CT	Cooling Tower	VOC	0.88	3.86	16	16	
2C-C1	Cooling Tower	VOC	0.88	3.86	16	16	
2C-C2	Cooling Tower	VOC	0.88	3.86	16	16	
<b>Maintenance, Startup, and Shutdown (MSS)</b>							
EDC-MAINT	Emissions to Atmosphere	VOC	647.96	12.60	29, 30, 31, 32, 33, 35	28, 29, 30, 31, 32, 33, 35	
		HCl	19.28	2.30	30	28, 29, 30	
		Cl <sub>2</sub>	0.37	0.01	30	28, 29, 30	

### Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 Cl<sub>2</sub> - chlorine  
 CO - carbon monoxide

HCl - hydrogen chloride

NOx - total oxides of nitrogen

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) This entry represents three separate emissions points. Emissions shown are the maximum allowable rates for the three incinerator/scrubber trains combined.

(7) Hourly CO emission rate during Startup.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
AIR QUALITY PERMIT



*A Permit Is Hereby Issued To*  
**Formosa Plastics Corporation, Texas**  
*Authorizing the Construction and Operation of*  
**Petrochemical Manufacturing**  
*Located at Point Comfort, Calhoun County, Texas*  
Latitude 28° 41' 20" Longitude 96° 32' 50"

Permit: 19199 and PSDTX1238

Revision Date : May 28, 2013

Renewal Date: December 2, 2015

  
For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]



6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

## **Special Conditions**

Permit Numbers 19199 and PSDTX1238

### **Emissions Standards**

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other conditions specified in this permit. **(12/05)**

### **Federal Applicability**

2. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for the following:
  - A. Small Industrial-Commercial-Institutional Steam Generating Units in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A and Dc.
  - B. Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 in 40 CFR Part 60, Subparts A and Kb.
  - C. Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemical Manufacturing Industry (SOCMI) in 40 CFR Part 60, Subparts A and VV.
  - D. The VOC Emissions from SOCMI Distillation Operations in 40 CFR Part 60, Subparts A and NNN.
  - E. The VOC Emissions from SOCMI Reactor Processes in 40 CFR Part 60, Subparts A and RRR. **(12/05)**
3. These facilities shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Source Categories promulgated for the following:
  - A. SOCMI in 40 CFR Part 63, Subparts A and F.
  - B. SOCMI Process Vents, Storage Vessels, Transfer Operations, and Wastewater in 40 CFR Part 63, Subparts A and G.
  - C. Equipment Leaks in 40 CFR Part 63, Subparts A and H. **(12/05)**

### **Emission Controls**

4. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions, with the exception of those listed below. **(12/05)**

Equipment No.	Description	Tag No.
DR-101A	Ethylene Dichloride (EDC) Reactor A	RV-101A RV-102A RV-102C
DR-101B	EDC Reactor B	RV-101B RV-102B RV-102C
DR-101C	EDC Reactor C	RV-101C RV-102E RV-102F
DC-102	Light Ends Distillation Column	RV-105 RV-106
DC-103	Heavy Ends Distillation Column	RV-107 RV-108
DC-104	EDC Recovery Column	RV-110
DV-301	Wet Waste Gas Buffer Tank	RV-301
DV-302	Dry Waste Gas Buffer Tank	RV-302
DC-105	HC1 Stripper Column	RV-111

5. The Incinerator-Scrubber System identified as Emission Point No. (EPN) 6002A/B/C shall achieve a destruction efficiency of the carbon compounds, excluding carbon dioxide, of no less than 99.95 percent, on a rolling 60-minute average. The Incinerator-Scrubber System shall maintain the hydrogen chloride (HCl) and chlorine (Cl<sub>2</sub>) concentrations in the system exhaust so that they do not exceed 7.4 and 7.5 parts per million by volume (ppmv) (ppmv, dry conditions, no excess air, on a rolling 60-minute average), respectively. **(12/05)**
6. The Incinerator-Scrubber System firebox exit temperature shall be maintained at not less than 1600°F and the incinerator combustion chamber oxygen (O<sub>2</sub>) concentration not less than 3 percent while waste gas is being fed into the system. **(04/07)**
7. The Incinerator-Scrubber System firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of six minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Fahrenheit or ±4.5°F. **(04/07)**

Quality assured (or valid) data must be generated when the Incinerator-Scrubber System is operating, except during the performance of an accuracy check, which will be performed at intervals of not more than six months. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-

month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

8. The O<sub>2</sub> analyzer used to satisfy Special Condition No. 6 shall continuously monitor and record O<sub>2</sub> concentration when waste gas is directed to the oxidizer. It shall reduce the O<sub>2</sub> readings to an averaging period of 6 minutes or less and record it at that frequency. **(04/07)**

The O<sub>2</sub> analyzer shall be installed, calibrated, and maintained according to accepted industry practice and the manufacturer's specifications. The analyzer shall be calibrated at the intervals recommended by the manufacturer, but the interval between calibrations shall never exceed one month. Copy of the accepted industry practice and the manufacturer's specifications shall be maintained on site and made available to Texas Commission on Environmental Quality (TCEQ) representatives upon request.

Quality-assured (or valid) data must be generated when the Incinerator-Scrubber System is operating, except during the performance of a monthly calibration check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

9. The exit temperature of the stand-by oxidizer firebox shall be maintained at not less than 800°F on a rolling 60-minute average. **(12/05)**
10. The permit holder shall install and maintain an absorber in each of the incinerator-scrubber systems venting through the Stack identified as EPN 6002A/B/C. The absorbers A, B, and C shall be subject to the following conditions: **(04/07)**
  - A. The minimum water circulation rate shall be greater than 70 gallons per minute (gpm) for absorbers A and B, and greater than 345 gpm for absorber C. The circulation rate shall be monitored and recorded at least once a day. **(04/07)**
  - B. The maximum absorber exhaust gas temperature shall not exceed 200°F. The holder of this permit shall install and maintain a temperature monitor for the absorber exhaust. The temperature shall be recorded at least every day. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least annually, whichever is more frequent, and shall be accurate to within 2 percent of the reading or 4.5 degrees Fahrenheit. **(04/07)**
  - C. The HCl concentration in the liquid purge shall not exceed 15 percent.
  - D. Records of the water circulation rate, temperature of the gas exiting the absorber and the HCl concentration in the liquid purge shall be made available to the TCEQ Executive Director or his representative upon request.
  - E. Quality-assured (or valid) data must be generated when waste gas is being directed to the oxidizer. Loss of valid data due to periods of monitor break down, out-of-

control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

11. The permit holder shall install and maintain a caustic scrubber in each of the incinerator-scrubber systems venting through the stack identified as EPN 6002A/B/C. The caustic scrubbers A, B, and C shall be subject to the following conditions: **(04/07)**
  - A. The scrubbing solution shall be maintained at or above a pH of 9.0. The pH shall be analyzed and recorded at least once a day. **(04/07)**
  - B. The caustic scrubber circulation rate shall be a minimum of 40 gpm for scrubbers A and B, and a minimum of 220 gpm for absorber C. The circulation rate shall be monitored and recorded at least once a day. **(04/07)**
  - C. Records of pH measurements, circulation rate measurements, and all batch purging operations shall be made available to the TCEQ Executive Director or his representative upon request.
  - D. Quality-assured (or valid) data must be generated when waste gas is being directed to the oxidizer. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**
12. The Incinerator-Scrubber System identified as Emission Point No. (EPN) 6002A/B/C shall not have a bypass. **(04/07)**
13. The following requirements apply to capture systems for each incinerator/scrubber system designated as EPN 6002A/B/C. **(02/11)**
  - A. If used to control pollutants other than particulate, either:
    - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
    - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
  - B. The control device shall not have a bypass.  
or  
If there is a bypass for the control device, comply with either of the following requirements:

- (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
- (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

- C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.
14. The process control for the vessels listed here shall be designed to interlock feed and steam, if steam is used, so that the vessel internal pressure never exceeds 70 percent of vessel design pressure. The vessels subject to this requirement are: DR-101A, DR 101B, DR-101C, DC 102, DC-103, DC-104, and DC-105. **(12/05)**
  15. Relief valves which might vent directly to the atmosphere shall be designed to relieve at no less than three times the normal operating pressure of the vessel on which they are installed. **(12/05)**
  16. The VOC associated with cooling tower water from cooling towers EDC-CT, 2C-C1, and 2CC2, shall be monitored monthly with an approved air-stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. If the strippable VOC in the cooling water exceeds 50 parts per billion by weight, the faulty equipment shall be identified and repaired at the earliest opportunity, but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of these monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of five years. **(04/10)**

### **Fugitive Emission Monitoring**

17. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP **(11/12)**

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) Piping and instrumentation diagram (PID);
  - (2) A written or electronic database or electronic file;
  - (3) Color coding;
  - (4) A form of weatherproof identification; or
  - (5) Designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve;  
or

- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven



pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

- M. With respect to Special Condition 17, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.
18. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 17, damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**
19. Connectors in VOC Service in the Route 200 Area — 28CNTQ

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment: **(12/05)**

- A. In addition to the weekly physical inspection required by Item E of Special Condition No. 17, all accessible connectors in gas/vapor and light liquid service shall be monitored quarterly with an approved gas analyzer in accordance with Items F thru J of Special Condition No. 17.
- B. In lieu of the monitoring frequency specified in Paragraph A, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.
- Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.
- If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.
- C. The percent of connectors leaking used in paragraph B shall be determined using the following formula:

$$(Cl + Cs) \times 100 / Ct = Cp$$

Where:

Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor connectors.

Cp = the percentage of leaking connectors for the monitoring period.

20. Piping, Valves, Pumps, and Compressors in Cl<sub>2</sub> Service

- A. Audio, olfactory, and visual checks for Cl<sub>2</sub> leaks within the operating area shall be made every week.
- B. Immediately (but not later than one hour) upon detection of a leak, plant personnel shall take the following actions:
  - (1) Isolate the leak by removing process fluid from the leaking component or equipment.
  - (2) Commence repair or replacement of the leaking component.
  - (3) If immediate repair is not possible, use a leak collection/containment system to prevent the leak until repair or replacement can be made.
- C. Records shall be maintained at the plant site of all repairs and replacements made. They shall include date and time of leak checks, results, date, and time repairs are commenced, and date and time repairs are completed.

**Stack Testing**

- 21. Sampling ports and platforms shall be incorporated into the design of the incinerator-scrubber stack according to the specifications set forth in Chapter 2, "Stack Sampling Facilities" of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs may be submitted for approval to the TCEQ Regional Director or the TCEQ Compliance Support Division. **(12/05)**
- 22. Upon request of the TCEQ Executive Director, the holder of this permit shall perform stack sampling and other testing as required to establish the destruction efficiency and actual pattern and quantities of air pollutants being emitted into the atmosphere from each Incinerator-Scrubber Train (EPNs 6002A, 6002B, and 6002C). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods. **(12/05)**

New stack testing shall be conducted in accordance with this permit condition as represented in the permit alteration representations dated March 8, 1999.

- A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Procedure/parameters to be used to determine worst-case emissions during the sampling period.

The purpose of the pretest meeting is to review and formalize the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals must have EPA and TCEQ approval, and requests shall be submitted to the TCEQ Regional Office.

- B. Air contaminants emitted from the incinerator/scrubbers to be tested for include (but are not limited to) VOC, ethylene dichloride (EDC),  $\text{Cl}_2$ , HCl, nitrogen oxides, and carbon monoxide.
- C. Sampling shall occur within 60 days after initial operation of the incinerator scrubber train and at such times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Initial sampling has been completed for the Incinerator-Scrubber Trains identified as EPNs 6002A, 6002B, and 6002C. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires prior approval, and requests shall be submitted to the TCEQ Regional Office.
- D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(12/05)**

One copy to the TCEQ Corpus Christi Regional Office.

One copy to the EPA, Air Enforcement Branch, Region 6, Dallas.

- F. Sampling shall be performed at least every five years in accordance with A, B, and D of this condition.
23. In the event the TCEQ Corpus Christi Regional Office or the TCEQ Compliance Support Division in Austin determines there are concerns with the recent testing conducted in accordance with Special Condition No. 22 that would affect the permit limits or requirements, then upon written request by the TCEQ, the incinerator operating parameters shall return to those required by the previous permit dated July 21, 1998, until the concerns are resolved. **(06/99)**

### **Maintenance Practices**

24. The concentration of EDC in the equipment vapor space shall be no more than 5 percent of the equipment volume at standard temperature and pressure prior to opening any equipment directly to atmosphere. This condition shall apply to all equipment containing at least 10 percent EDC by weight. Any emissions associated with these activities are not authorized and are subject to Title 30 Texas Administrative Code (30 TAC) § 101.211, Subchapter F. **(03/07)**

### **Recordkeeping**

25. A copy of the most recent test report, which contains the results of the testing conducted in accordance with Special Condition No. 22 shall be maintained on-site with a copy of the permit. **(06/99)**

### **Contemporaneous Reductions**

26. Approval of the permit amendment application, form PI-1 dated January 25, 2005, is conditioned on completion of all emission reduction projects represented on the plot plan of this permit amendment application. The holder of this permit shall implement quarterly monitoring on connectors within the area identified as "Route 200" associated with the Water Wash and Caustic Wash Systems.

These reductions in emissions shall occur not later than the commencement of operation of the modified facilities. The holder of this permit shall maintain records of these emission reductions and provide access and/or copies upon request to the TCEQ Executive Director, his representatives, or any local air pollution control program having jurisdiction. **(12/05)**

### **Maintenance, Start-Up, and Shutdown Emissions(MSS)**

27. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize and purge to control per Special Condition 30	6002 A/B/C
All facilities*	Degas facilities to atmosphere after control per Special Condition 30	EDC-MAINT
All facilities*	Fill and/or vent to control during startup	6002 A/B/C
Incinerator-Scrubber	Startup	6002 A/B/C
Instruments/analyzers	Maintenance and calibrations	EDC-MAINT
All facilities	Sampling and sight glass cleaning	EDC-MAINT

\* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and control devices meeting the requirements of Special Condition 33 and 35. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility. **(11/12)**

28. This permit authorizes the emissions from the facilities identified in Special Condition 27 for the planned MSS activities summarized in the MSS Activity Summaries (Attachments A, B and C) attached to this permit.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date and time of the MSS activity and its duration;
- E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, PI-1 dated January 3, 2008, and consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

- 29. Except for storage tanks, instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements.
  - A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.
  - B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
  - C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

- D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.
- E. After degassing in accordance with Special Condition 30.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.
  - (1) For MSS activities other than process unit startup, shutdown, or turnaround, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
  - (2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 31. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.
- F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
  - (1) It is not technically practicable to depressurize or degas, as applicable, into the process.
  - (2) There is not an available connection to a plant control system (flare or incinerator).
  - (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except as noted in Attachment A, all instances of venting directly to atmosphere per Special Condition 30.F must be documented when occurring as part of any MSS



activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities. **(11/12)**

30. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.
- (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured must be less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3) the concentration measured must be at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000\* mole fraction of the total air contaminants present in the gas stream that can be detected by the tube.

The mole fraction of the total air contaminants present in the gas stream that can be detected by the tube may be estimated based on process knowledge.

The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

- (1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.
  - (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
  - (3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.
- D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:
  - (1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.
  - (2) The sample bag shall be connected directly to the sample valve.
  - (3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.
  - (4) The two valves shall then be closed to seal the sample in the bag.
  - (5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.
  - (6) This process is repeated to collect additional samples.
  - (7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). An alternative laboratory method may be approved by the TCEQ Regional Office upon request. The sample shall be analyzed per Section 8.2.1.5 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting. **(11/12)**
31. If the removal of a component for repair or replacement results in an open ended line or valve, the date and line or valve shall be recorded, and the open ended line is exempt from requirement in Special Condition 17 to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- A. A cap, blind flange, plug, or second valve must be installed on the line or valve; or
  - B. The permit holder shall verify that there is no leakage from the open-ended line or valve. The open-ended line or valve shall be monitored on a weekly basis in accordance with Special Condition 17 except that a leak is defined as any VOC reading greater than background. Leaks must be repaired by end of the next calendar day or a cap, blind flange, plug, or second valve must be installed on the line or valve. The results of this weekly check and any corrective actions taken shall be recorded. **(11/12)**
32. This permit authorizes emissions from fixed roof storage tanks. The following requirements apply.
- A. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, controlled degassing shall be completed as follows:
    - (1) Any gas or vapor removed must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the storage tank when degassing to the control device or controlled recovery system.
    - (2) The vapor space shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
    - (3) A volume of purge gas equivalent to twice the volume of the vapor space must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 29.
    - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
    - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.
  - B. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part C of this condition is satisfied.
    - (1) Minimize air circulation in the tank vapor space.

- (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
  - (b) Access points shall be closed when not in use
- (2) Minimize time and VOC partial pressure.
  - (a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part C.(1) of this condition;
  - (b) Blowers may be used to move air through the tank without emission control at a rate not to exceed 2800 cubic feet per minute for no more than 432 hours. All standing liquid shall be removed from the tank during this period.
  - (c) Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.
- C. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
  - (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
  - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
    - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
    - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
    - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 30.
  - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- D. The occurrence of each degassing and the associated emissions shall be recorded and the rolling 12-month tank emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
  - (2) the reason for the tank maintenance;
  - (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
    - (a) all liquid was pumped from the tank to the extent practical,
    - (b) start and completion of controlled degassing, and total volumetric flow,
    - (c) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
    - (d) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
  - (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events b and d with the data and methods used to determine it. The emissions associated with fixed roof storage tank activities shall be calculated using the methods described in the permit application. **(11/12)**
33. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:
- A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.
  - B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
  - C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.
    - (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

- (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a “duckbill” or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
  - (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 30.
  - (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
- D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis. **(11/12)**
- 34. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**
- 35. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

- (1) The CAS shall consist of two carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:
  - (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

- (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.
  - (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 30.
  - (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.
  - (5) Records of CAS monitoring shall include the following:
    - (a) Sample time and date.
    - (b) Monitoring results (ppmv).
    - (c) Canister replacement log.
  - (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.
- B. The plant Incinerator-Scrubber System (EPN 6002 A/B/C) shall operate as specified in Special Conditions 5 through 13.
- C. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.
- (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
  - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 30.
  - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv

above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. **(11/12)**

36. The following requirements apply to capture systems for the Incinerator-Scrubber System (EPN 6002 A/B/C).
- A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
  - B. The control device shall not have a bypass.
  - C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above. **(11/12)**
37. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013



**Permit 19199 and PSDTX1238**

Attachment A

Inherently Low Emitting Activities

Activity	Emissions
	VOC
Soap and other aqueous based cleaners	X
Maintenance on water treatment systems	X
Replacement of analyzer filters and screens	X
Cleaning sight glasses	X

Dated: November 30, 2012

**Permit 19199 and PSDTX1238**

Attachment B

Routine Maintenance Activities

Facilities	Description/Emission Activities	EPN
Reactors	Vent to atmosphere	EDC-MAINT
Columns	Vent to atmosphere	EDC-MAINT
Vessels	Vent to atmosphere	EDC-MAINT
Blowers	Vent to atmosphere	EDC-MAINT
Pumps	Vent to atmosphere	EDC-MAINT
Filter/Strainers	Vent to atmosphere	EDC-MAINT
Heat Exchangers	Vent to atmosphere	EDC-MAINT
Vacuum Trucks	Vent to atmosphere	EDC-MAINT
Maintenance Wastewater	Vent to atmosphere	EDC-MAINT
Scrubbers	Vent to atmosphere	EDC-MAINT
Incinerators	Vent to atmosphere	EDC-MAINT
Piping, Valves and Relief Valves	Vent to atmosphere	EDC-MAINT
Fixed Roof HCl Storage Tanks	Vent to atmosphere	EDC-MAINT

Dated: November 30, 2012

**Permit 19199 and PSDTX1238**

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 28.

Plant startup, shutdown, and turnaround

Sludge Cleaning

Fixed Roof VOC Storage Tanks

Activities not listed on Attachments A and B or not otherwise authorized

Date: November 30, 2012

## Emission Sources - Maximum Allowable Emission Rates

Permit Number 19199 and PSDTX1238

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

### Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EDCFUG	Process Fugitives (5)	Cl <sub>2</sub>	0.01	0.02
		HCl	0.01	0.01
		VOC	1.47	6.44
6002A/B/C	Three Incinerator/Scrubbers (6)	Cl <sub>2</sub>	0.86	3.78
		CO	2.18	9.54
		CO (7)	9.00	-
		HCl	0.44	1.92
		NO <sub>x</sub>	5.69	24.91
		VOC	1.18	5.27
EDC-CT	Cooling Tower	VOC	0.88	3.86
2C-C1	Cooling Tower	VOC	0.88	3.86
2C-C2	Cooling Tower	VOC	0.88	3.86
<b>Maintenance, Startup, and Shutdown (MSS)</b>				
EDC-MAINT	Emissions to Atmosphere	VOC	647.96	12.60
		HCl	19.28	2.30
		Cl <sub>2</sub>	0.37	0.01

Emission Sources - Maximum Allowable Emission Rates

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
Cl<sub>2</sub> - chlorine  
CO - carbon monoxide  
HCl - hydrogen chloride  
NO<sub>x</sub> - total oxides of nitrogen
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) This entry represents three separate emissions points. Emissions shown are the maximum allowable rates for the three incinerator/scrubber trains combined.
- (7) Hourly CO emission rate during Startup.

Date: November 30, 2012